Alaska
Public Health
Pest Control
Supplemental Information

Category Eight

In general, applicators who apply pesticides to property other than their own, or act as a pesticide consultant must obtain certification from the Alaska Department of Environmental Conservation (ADEC) Pesticide Program. Applicators who apply restricted-use pesticides must also be certified.

Individuals in the health care or environmental health field who use or recommend pesticides must be certified by the Alaska Department of Environmental Conservation (ADEC) in the Public Health Pest Control category (Category Eight).

The Florida Public-Health Pesticide Applicator Training Manual contains the majority of information needed to successfully complete the written examination to obtain certification in Category eight. However, regulations and requirements are different in Alaska, as are some environmental conditions and some types of pests. This supplemental manual provides additional information that is specific to Alaska.

You will also need to have a working knowledge of the information covered in the following documents and manuals:

- National Pesticide Applicator Certification Core Manual; and
- State of Alaska Pesticide Regulations in Title 18, Chapter 90 of the Alaska Administrative Code (18 AAC 90)

CALCULATIONS

Precise and accurate application is important for every pesticide application. Strong math skills, including the ability to calculate speed, volume, odd shaped areas, mixing ratios, rates of application, etc. will be necessary to successfully pass examination for this category.

CONTROL OF MOSQUITOES AND BITING FLIES

The public health pest control category does not include control of mosquitoes or biting flies. To act as a pesticide consultant or apply pesticides (on property other than your own) for control of these pests, you must obtain certification in Category 10, Mosquito and Biting Fly Pest Control.

PUBLIC NOTIFICATION AND POSTING

A public place is defined as plazas, parks, public sports fields, government offices or grounds (except those with restricted access), and common areas of apartment buildings or multi-family dwellings.

Before applying pesticides to any public place, applicators must first post written notice informing the public when pesticides will be applied, and how long they must remain out of the area.

Signs must meet the following requirements:

- posted at each access point,
- posted prior to application of pesticide,

- remain in place at least 24 hours, or the re-entry period specified on the label, whichever is longer,
- at least 8 ½ by 11 inches in size,
- located between three feet and four feet above the ground, except if posted outdoors on a stake, at least 12 inches off the ground,
- include information about the date and time of application, contact name and phone number, and how long public must remain out of the area.

Record of the application, including all information required on the sign, must be maintained for at least two years after application.

Public notification requirements do not apply to the use of anti-microbial pesticides, rodenticides in tamper resistant bait stations, or ready-to-use pastes, foams, or gels.

Regulations related to public notification and posting requirements may be found at Title 18, Chapter 90, Section 630 of the Alaska Administrative Code. Please review the specific details of these requirements in the Pesticide Regulations.

PESTICIDE USE IN SCHOOLS

The state of Alaska has specific regulations regarding reducing use of pesticides in schools. There are additional requirements for posting treatment areas and notifying parents and guardians prior to pesticide use in schools. Applicators must be knowledgeable about these requirements, and should be able to provide necessary information to school administrators.

Regulations require that parents or guardians be notified at least 24-hours prior to pesticide use at a school. Specific information about the location, date and time, and pesticide to be used must be provided, as well as contact information for the school and the pesticide manufacturer.

Before applying pesticides on school grounds, applicators must first post written notice with information about the pesticide application. Signs must meet the following requirements:

- posted at each access point to the treatment area,
- posted prior to application of pesticide,
- remain in place at least 24 hours, or the re-entry period specified on the label, whichever is longer,
- at least 8 ½ by 11 inches in size,
- include the statement “Pesticide treated area, keep out until dry” (or other time required by the label),
- include information about the date and time of application, pesticide name and EPA registration number, and contact name and phone number.

School administrators must ensure that the sign remains posted and children are kept out of the treated area for at least 24 hours, or the re-entry interval if it is longer.

These requirements do not apply to antimicrobials (sanitizers), tamper proof rodent bait stations, use of rodenticides in areas that children cannot access, or use of gels, pastes, or foams in areas

that children cannot access. The requirements also do not apply in a school that will be unoccupied for at least 72 hours following the application.

Regulations related to pesticide use in schools may be found at Title 18, Chapter 90, Section 625 of the Alaska Administrative Code. Please review the specific details of these requirements in the Pesticide Regulations.

ALASKA RECORD KEEPING REQUIREMENTS

State regulations require certified applicators to keep detailed records of ALL commercial or contract pesticide applications. Records must be kept for a minimum of two years and must contain the following information for both restricted use pesticides (RUPs) and general use pesticides (GUPs):

- Name of applicator
- Date of application
- Pesticide product name
- EPA registration number
- Location/address of area treated
- Site (e.g. front yard, living room, etc.) or specific crop to which pesticide was applied
- Target pests
- Amount applied - rate, dilution, and total amount. *(Pounds released for fumigants)*
- *Fumigants only* - temperature and duration of exposure period

The following additional information must be recorded for all RUP applications:

- Name and address of customer where pesticide was applied
- Time of application
- Percentage of active ingredient
- Disposal information for excess container, pesticide, rinsate, including disposal method, date, location.

ALASKA PESTICIDE USE PERMIT REQUIREMENTS

By state law, an ADEC Pesticide Use Permit is required before you may apply pesticide under the following circumstances:

- To any state owned or leased right of way, regardless of the size of application area or the pesticide to be applied.
- To any state owned or leased land that is 1 acre or more in area.
- To any water body or wetlands, including creeks, drainages, streams, ponds, rivers and swamps, regardless of who owns the surrounding lands.
- To more than one property.
- Aerial application (by airplane or helicopter).

Regulations related to permit requirements may be found at 18 AAC 90, Sections 500-540. The permitting process is rigorous, and takes a minimum of 100 days to complete. Applicators should plan well in advance to ensure that a valid Pesticide Use Permit can be obtained for the planned pesticide application.

The permitting process requires detailed information about the specifics of the proposed pesticide use. Once all the required information is submitted, the application is opened to a public comment and review period, and may require a public hearing. Once the public review period is complete, ADEC will conduct a thorough review of the proposed project and determine whether or not to issue a Pesticide Use Permit. If a Permit is issued, it does not become valid until after a 40 day waiting period, to allow time for the public to appeal the decision.

Pesticide use often raises concern in local communities, and may become contentious. Public resistance to the proposed pesticide use may impact your ability to obtain a Pesticide Use Permit.

Failure to obtain a permit is a violation of state law, and can result in significant penalties under Alaska Statute 46.03.760. It is the responsibility of the pesticide applicator to ensure that all required permits and approvals are in place before applying pesticides.

SPECIFIC PUBLIC HEALTH PESTS AND ISSUES IN ALASKA

Bed Bugs

The bedbug control information in the *Florida Manual* is somewhat outdated, as bedbugs are now making a resurgence. Due to their increasing presence across the nation, including Alaska, additional information is warranted.

Eradication of bedbugs can be extremely difficult – in general, chemical controls are only partially effective, and any insects that remain can re-populate an area. In addition, bedbugs can easily survive up to 18 months without food. The use of Integrated Pest Management (several different tactics and methods used together) will result in the most effective control of bedbugs.

Bedbugs tend to hide behind baseboards, moldings, window frames, door frames, behind pictures, within paneled walls, in electrical outlets, inside electronic equipment, and any other small crevice or gap. This makes it difficult to reach bedbugs with control efforts.

Clutter is probably the single biggest obstacle that stands in the way of control. Bed bugs hide and lay their eggs virtually everywhere. As a result, clutter provides an unlimited number of hiding places for bed bugs. In addition, clutter creates areas that cannot be effectively treated or reached by control efforts. **The first step to controlling bedbugs is to eliminate as much clutter as possible and remove or expose as many hiding places as possible.**

Vacuum cleaners with disposable bags can be used to physically remove many bed bugs from areas of high infestation such as mattresses or other furniture. Low vapor steam cleaners that reach at least 220 degrees Fahrenheit can also be used to kill bedbugs in these areas. It is very important to dispose of the contents of the vacuum immediately after use. Vacuum bags should be placed into plastic trash bags, sealed shut, and disposed of outside of the building.

Furniture or other infested items that are to be disposed of should be tightly sealed in plastic, clearly labeled as "Infested with bedbugs", and taken outside of the building. It is a good idea to destroy or disassemble these items to prevent 'dumpster divers' from taking these items home and starting a new infestation elsewhere.

Heat treatment is one method of controlling bedbugs. Temperatures over 120 degrees Fahrenheit are lethal to bedbugs and their eggs. Special portable heat units can be used to rapidly raise the temperature in a room to lethal levels. **The entire contents of the room must remain above this temperature for several hours.** This method is only effective if all gaps and exit routes are blocked to prevent bedbugs from avoiding temperature extremes or migrating into different rooms, and if all clutter is removed to prevent safe harborage for bedbugs. One advantage of heat treatment is that it has no chemical or toxic effects. This treatment may damage sensitive items such as photographs or electronics.

Most of the pesticides that are commercially available for bedbugs are effective as a contact spray, but have little or no residual effect. Chemicals like DDT and Malathion which were used in the past were very effective, largely due to their long-term residual properties. However, these products are no longer available due to serious environmental and human health effects from these chemicals.

The entire contents of a room must be exposed to any pesticide product used. Chemical controls are only effective if all gaps and exit routes are blocked to prevent bedbugs from avoiding the pesticide or migrating into different rooms, and if all clutter is removed to prevent safe harborage for bedbugs.

Available pesticides to control bedbugs changes frequently`. It is important for applicators to research products and know their advantages and disadvantages, as well as do regular reviews of information about available products.

Foggers or 'bug bombs' do not effectively penetrate into the tiny cracks and crevices where bed bugs hide. As a result, they introduce potentially dangerous chemicals into a building without being effective. Use of room foggers to control bedbugs is not recommended.

Hobo Spiders

Although most venomous spiders do not exist in Alaska, the hobo spider, *Tegenaria agrestis*, may inhabit the panhandle area of Alaska.

The Hobo Spider is brown, with darker chevron markings on the back of its abdomen, with the chevrons pointing towards the head. The average size of a mature Hobo Spider is approximately ½ to ¾ of an inch, with a leg span of 1.5 inches. Hobo Spiders create funnel shaped webs in cracks or crevices, and are generally found near ground level.

The symptoms of hobo spider bites vary considerably. Bites may cause a small irritation to the skin, necrotic lesions to the skin, systemic disturbances, blood disorders, or even internal organ damage, depending on the amount of venom injected.

Bites from these spiders are usually painless and initially form an expanding swollen reddish ring that may reach up to 15 cm in diameter. Numbing sensations or dizziness may also occur shortly after the bite. Within the first 36 hours, blisters may form around the lesion, possibly accompanied by severe headache, visual or auditory disturbances, weakness, or joint pains. Blisters at the lesion site will rupture, and discharge fluids which crust around the wound. After 2 or 3 days the area around the wound may blacken.. A cycle of sloughing and crusting at the ulcerated site (with the discharge of blood and serum) may continue for some time, often requiring six months or more for complete healing to occur. Bites can also induce systemic symptoms, ranging from a persistent headache (the most common) to severe blood disorders, to permanent damage to internal organs.

Control of hobo spiders includes eliminating harborage sites, inspecting likely habitats for presence of spiders, and cautious use of residual insecticides.

Surface Sanitizing

Any surface cleaner that states it is **anti-bacterial** or **anti-microbial** is considered a pesticide. This does not include products designed to be applied directly to the body, such as hand soaps or hand sanitizers.

Products used to sanitize surfaces should be EPA registered products which are labeled for the specific intended use. If used in food preparation areas or on food contact surfaces, the sanitizer must be labeled for this type of use.

Precise measurement is very important when mixing sanitizers. Because only a small quantity is usually made, tiny errors in measurement can have a large effect on the overall concentration. Too low a concentration won't effectively sanitize; too high a concentration can be dangerous.

Many products must remain in direct contact for a certain period of time in order to effectively kill the target bacteria or microbes. It is important to read and follow all label instructions for the required contact time.

PORTIONS OF THE FLORIDA MANUAL TO DISREGARD

You may disregard the following sections or pages of the *Florida Manual*, as they either do not apply to this category, or do not apply in Alaska:

- **Chapter 2**, pages 2-2 through 2-13, including information related to diseases spread by mosquitoes and ticks. These diseases are not known to be spread by these vectors in Alaska.
- **Chapter 3** (all); including information mosquito control. Control of mosquitoes is addressed under Category 10.
- **Chapter 4**; pages 4-11 through 4-13, including information on Asian, Brownbanded, American, Oriental, and Woods cockroaches. Only the German cockroach is generally found in Alaska.

- **Chapter 5**; pages 5-4 through 5-9, including information on ticks. The few tick species found in Alaska do not prey on humans and are not disease vectors in Alaska.
- **Chapter 6** (all); including information biting fly control. Control of biting flies is addressed under Category 10.
- **Chapter 7**; pages 7-10 through 7-14, including information on venomous spiders, centipedes and scorpions, and urticating caterpillars. These pests are not found in Alaska.
- **Chapter 8**; pages 8-19 through 8-21; including information on skunks, raccoons, oppossums, mongooses, and snakes. These pests are not found in Alaska.

Before Using Any Pesticide

STOP

All pesticides can be harmful to health and environment if misused.

Read the label carefully. Use only as directed.